

**REMARKS**

Claims 58-99 were pending in the present application. By virtue of this response, no claims have been cancelled, amended, or added. Accordingly, claims 58-99 are currently under consideration.

**Concerning the Specification**

The disclosure stands objected to because of an informality regarding the top margin of the pages of the specification and paragraph numbering. Submitted herewith is a marked-up substitute specification with an appropriate top margin and paragraph numbering. Also submitted is a clean copy of the substitute specification. Further enclosed is a copy of the previously submitted specification showing the objected to margin for your convenience.

**Rejections under 35 U.S.C. §112, second paragraph**

Claims 95-99 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner states “it is unclear what is intended by ‘an adapter board’.”

Applicants submit that an “adapter board,” as recited in the preamble of claim 95 “capable of being integrated into a system for producing servo tracks on a magnetic tape,” is clear and definite under 35 U.S.C. §112. In particular, an “adapter board,” includes a structure or device having the recited features that is capable or configured for use with a system for producing servo tracks on a magnetic tape. Accordingly, Applicants submit that claims 95-99 are definite and the rejection should be withdrawn.

**Rejections under 35 U.S.C. §103(a)**

A. Claims 58-61, 63, 66, 68-79, and 83-86 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774) in view of Damer et al. (US 6,365,061) and Bouldin et al. (US 4,788,129).

In regard to claims 58-61, 63, 66, and 68 the Examiner states, *inter alia*, that:

Saliba et al discloses (see Fig 4A) a system for producing detectable servo tracks on a magnetic tape having a recording side (magnetic layer 4) and a non-recording side (back coating layer 7), comprising a marking mechanism including ... a controller controlling the intensity of the beam (servo tracking processor 34 capable of controlling the time dependent sequence of the beams)...(Emphasis added).

Applicants respectfully disagree and submit that the Examiner has failed to present a *prima facie* case of obviousness because the proposed combination fails to disclose all the features of claim 58, and further because the Examiner has failed to identify a sufficient suggestion or motivation for the proffered combination.

The combination of Saliba, Damer, and Bouldin fails to disclose or suggest a system including “a controller that controls an intensity of the first beam so as to provide a time-dependent sequence of the second beams,” as recited by claim 58. Saliba discloses a servo control system in Fig. 4(a) for tracking a previously formed servo track, but does not disclose a system for forming servo tracks having a controller for controlling the intensity of the beam in Fig. 4(a) as stated by the Examiner. (Saliba, col. 5, lines 30-67). In particular, Fig. 4(a) illustrates a push-pull servo method where servo tracking processor 34 (identified by the Examiner as controlling the time dependent sequence of the beams) is used to process detected signals reflected from servo marks to detector 33 during a servo process, but servo tracking processor 34 is not used in a marking mechanism for forming the servo tracks. (Saliba, col. 5, lines 30-54). Saliba fails to disclose a system for forming servo marks having “a controller that controls an intensity of the first beam,” as recited by claim 58. Accordingly, the combination of Saliba, Damer, and Bouldin fails to disclose or suggest the features of claim 58 and the rejection should be withdrawn.

Additionally, Applicants submit that the Examiner has failed to provide an adequate suggestion or motivation for the proffered combination and modifications to the references to meet the features of the present claims. To establish a *prima facie* case of obviousness there must be some suggestion or motivation in the prior art to combine the reference teachings. See, MPEP §§

2142, 2143. The Office Action states that “[i]t would have been obvious ... to include a marking mechanism such as shown by Damer et al having a single beam light source and a pattern generator splitting the first beam in Saliba et al to reduce energy cost and the time required to produce a servo pattern by using a plurality of splitted etching beams.” The Examiner has failed, however, to identify anything in the prior art that would suggest to one of ordinary skill in the art to modify the disclosure of Saliba to include the marking mechanism disclosed by Damer. In particular, the Examiner has failed to establish a suggestion, teaching, or motivation in the prior art such as a specific understanding or technical principle that would have suggested the combination to meet the present claims. See, *In re Rouffet*, 149 F.3d at 1350, 1357 (Fed. Cir. 1998); MPEP §§ 2142, 2143.01. The analysis lacks any evidence of a suggestion or motivation to lead one skilled in the art to modify the reference to meet the features of the present claims based on evidence, e.g., a reference or affidavit of the Examiner’s personal knowledge. See, 37 CFR 1.104(d) (1) and (2). The mere assertion that a reference can be combined or modified is not sufficient to establish *prima facie* obviousness unless the prior art also suggests the desirability of the combination. MPEP § 2143.01. Accordingly, the Examiner has failed to point to any evidence suggesting the desirability of a modification to meet the features of the present claims and the rejection should be withdrawn.

Applicants further submit that the disclosures of the references in fact do not provide one skilled in the art with a teaching, suggestion, or motivation to modify the references to meet the features of claims 58-61, 63, 66, 68-70, and 83-86, or suggest the desirability of the features of the present claims. Accordingly, the rejection should be withdrawn and claims 58-61, 63, 66, 68-70, and 83-86 allowed.

**B.** Claim 62 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061), and Bouldin et al. (US 4,788,129) as applied to claim 58 and in further view of Abramson et al. (US 3,610,721).

Claim 62 depends from claim 58 and is allowable for at least similar reasons as claim 58 discussed above. The addition of Abramson does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 58, nor is it alleged to in the Office Action.

Further, Applicants submit the Examiner has failed to present a *prima facie* case of obviousness and is engaging in impermissible hindsight analysis in making the proposed combination. The Examiner states “[i]t would have been obvious ... to include (attenuator) filters in Saliba et al as modified to adjust the intensity of the beam as taught by Abramson.” The Examiner has failed to identify any suggestion or motivation in the prior art for the combination or modification to the system of Saliba to meet the features of claim 62. Even if Abramson discloses or suggest attenuators/filters for light beams, the assertion falls short of suggesting to one of ordinary skill in the art to modify Saliba to meet the features of the present claim, e.g., “wherein the pattern generator includes an attenuator capable of attenuating the intensity of at least one of the first beam and the second beams.” Specifically, the analysis lacks any evidence of a suggestion or motivation to lead one of ordinary skill in the art to combine and modify the references to meet the features of the present claims based on a reference or affidavit of the Examiner’s personal knowledge. See, 37 CFR 1.104(d)(1) and (2).

Additionally, Applicants submit that the references in fact do not provide a teaching, suggestion, or motivation to combine or modify the references to meet the features of claim 62, or suggest the desirability of the features of claim 62. Saliba discloses a multiple-layer backcoating for a magnetic tape in which an optical servo track may be formed. (Saliba, col. 1. lines 63-67). In stark contrast to Saliba, Abramson discloses a process for “making and reconstructing magnetic holograms.” (Abramson, col. 1, lines 48-75). Accordingly, there is no suggestion in either reference for combining the references or modifying the system of Saliba to include the features of claim 62. Therefore, one skilled in the art would not reasonably be led to develop a system including a pattern generator including “an attenuator capable of attenuating the intensity of at least one of the first beam and the second beams,” as recited by claim 62.

Additionally, Applicant submits that Abramson is non-analogous art and is therefore improperly combined with Saliba. To rely on a reference under 35 U.S.C. § 103(a), a reference must be analogous prior art. MPEP § 2141.01(a). In particular, “the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned.” *In re Oetiker*, 977 F.2d, 1443, 1446 (Fed. Cir. 1992). As

further explained in *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992), a reference is reasonably pertinent if the reference “logically would have commended itself to an inventor’s attention in considering his problem.” In the present instance it is clear that processes relating to magnetic holographic data storage, as disclosed by Abramson, are not in the same field of Applicant’s endeavor regarding systems and methods for forming servo patterns on magnetic media (e.g., compare Abramson col. 1, lines 9-37 and 48-75, with page 2, lines 16-28 of the present application). For example, the holographic storage systems and processes disclosed by Abramson differ from Applicant’s endeavor regarding forming an optical servo pattern on magnetic media.

It is further evident that Abramson is not reasonably pertinent to the problem addressed by the present application regarding formatting a magnetic tape with one or more servo tracks (see, e.g., page 2, lines 13-14 of the present application). In contrast, Abramson provides “a process...for making and reconstructing magnetic holograms,” to store information. (Abramson, col. 1, lines 48-75). A reference for making and reconstructing magnetic holograms would not have logically commended itself to an inventor’s attention when dealing with problems relating to forming servo tracks on magnetic storage tape. Therefore, Abramson is non-analogous art and is inappropriately combined with Saliba, Damer, and Bouldin under the present obviousness rejection.

For at least the above reasons the rejection should be withdrawn and claim 62 allowed.

C. Claims 64 and 65 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061), and Bouldin et al. (US 4,788,129) as applied to claim 58 and in further view of Brodsky et al. (US 6,160,568).

Claims 64 and 65 depend from claim 58 and are allowable for at least similar reasons as claim 58 discussed above. The addition of Brodsky does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 58, nor is it alleged to in the Office Action.

Further, the Examiner has failed to identify any teaching, suggestion, or motivation in the prior art for the combination or modification to the references to meet the features of the present claims and is engaging in impermissible hindsight analysis in the rejection.

**D.** Claim 67 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061), and Bouldin et al. (US 4,788,129) as applied to claim 58 and in further view of Braitberg (US 4,136,347).

Claim 67 depends from claim 58 and is allowable for at least similar reasons as claim 58 discussed above. The addition of Braitberg does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 58, nor is it alleged to in the Office Action.

Further, the Examiner has failed to identify any teaching, suggestion, or motivation in the prior art for the combination or modification to the references to meet the features of the present claim and is engaging in impermissible hindsight analysis in the rejection.

**E.** Claims 80-82 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061), and Bouldin et al. (US 4,788,129) as applied to claim 58 above and in further view of Saito et al. (US 5,982,592) and Kosarko et al. (US 4,833,556).

Claims 80-82 depend from claim 58 and are allowable for at least similar reasons as claim 58 discussed above. The addition of Saito and Kosarko does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 58, nor is it alleged to in the Office Action.

Further, the Examiner has failed to identify any teaching, suggestion, or motivation in the prior art for the combination or modification to the references to meet the features of the present claims and is engaging in impermissible hindsight analysis in the rejection.

F. Claims 87-94 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061), and Bouldin et al. (US 4,788,129) as applied to claim 58 above and in further view of Ueyanagi (US 6,396,776).

Claims 87-94 depend from claim 58 and are allowable for at least similar reasons as claim 58 discussed above. The addition of Ueyanagi does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 58, nor is it alleged to in the Office Action.

Further, the Examiner has failed to address several features of claims 87-94. For example, the features of claim 89 including an edge detector are not addressed in the Office Action. Also, the Examiner has failed to identify any teaching, suggestion, or motivation in the prior art for the combination or modification to Saliba and Ueyanagi to meet the features of the present claims and is engaging in impermissible hindsight analysis in the rejection.

G. Claims 95, 96, and 99 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774) in view of Damer et al. (US 6,365,061), Bouldin et al. (US 4,788,129), and Abramson (US 3,610,721).

In regard to claims 95, 96, and 99 the Examiner states, *inter alia*, that:

Saliba et al, Damer et al and Bouldin et al are cited for the same reasons discussed above showing the collection of elements of claim 95 and claim 99 listed as a marking mechanism, a laser, a pattern generator (splitting device with optical and focusing elements) and Bouldin et al's guiding assembly with rollers (reels). ... Abramson teaches (see column 3, lines 29-30) a beam-forming device forming a conditioned beam (filters) for the light beams in magnetic hologram. It would have been obvious at the time the invention was made to include beam conditioner (filters) in Saliba et al as modified to adjust the intensity of the beam as taught by Abramson.

Applicants respectfully disagree and submit that the Examiner has failed to present a *prima facie* case of obviousness because the proposed combination fails to disclose all the features

of claim 95 and further submit the Examiner has failed to identify a sufficient suggestion or motivation for the proffered combination.

As discussed above with regard to the rejection to claim 58, Saliba discloses a servo control system in Fig. 4(a) for tracking a previously formed servo track, but does not disclose a system for forming servo tracks having a marking mechanism and controller for controlling the intensity of the beam. (Saliba, col. 5, lines 30-67). In particular, Fig. 4(a) illustrates a push-pull servo method where servo tracking processor 34 (identified by the Examiner as controlling the time dependent sequence of the beams) is used to process detected signals reflected from servo marks to detector 33 during a servo process, but servo tracking processor 34 is not used in forming servo tracks. (Saliba, col. 5, lines 30-54). Saliba fails to disclose or suggest a system for forming servo marks as recited by claim 95. The addition of Abramson fails to cure the deficiencies of Saliba, Damer, and Bouldin, nor is it alleged to in the Office Action. Accordingly, the combination of Saliba, Damer, Bouldin, and Abramson fails to disclose or suggest the features of the present claims and the rejection should be withdrawn.

Further, Applicants submit the Examiner has failed to present a *prima facie* case of obviousness and is engaging in impermissible hindsight analysis in making the proposed combination. The Examiner states “[i]t would have been obvious ... to include beam conditioner (filters) in Saliba et al as modified to adjust the intensity of the beam as taught by Abramson.” The Examiner has failed to identify any suggestion or motivation in the prior art for the combination or modification to the system of Saliba to meet the features of claim 95. Even if Abramson discloses or suggest attenuators/filters for light beams, the assertion falls short of suggesting to one of ordinary skill in the art to modify Saliba to meet the features of the present claim, e.g., “a beam forming device disposed within the optical path and capable of controlling characteristics of the laser beam to form a conditioned beam having a selected beam size and power.” Specifically, the analysis lacks any evidence of a suggestion or motivation to lead one of ordinary skill in the art to combine and modify the references to meet the features of the present claims based on a reference or affidavit of the Examiner’s personal knowledge. See, 37 CFR 1.104(d)(1) and (2).



Additionally, Applicants submit that the references in fact do not provide a teaching, suggestion, or motivation to combine or modify the references to meet the features of claim 95, or suggest the desirability of the features of claim 95. Saliba discloses a multiple-layer backcoating for a magnetic tape in which an optical servo track may be formed. (Saliba, col. 1, lines 63-67). In stark contrast to Saliba, Abramson discloses a process for “making and reconstructing magnetic holograms.” (Abramson, col. 1, lines 48-75). Accordingly, there is no suggestion in either reference for combining the references or modifying the system of Saliba to include the features of claim 95. Therefore, one skilled in the art would not reasonably be led to develop a system including a pattern generator including “a beam forming device disposed within the optical path and capable of controlling characteristics of the laser beam to form a conditioned beam having a selected beam size and power,” as recited by claim 95.

Additionally, Applicants submit that Abramson is non-analogous art and is therefore improperly combined with Saliba. To rely on a reference under 35 U.S.C. § 103(a), a reference must be analogous prior art. MPEP § 2141.01(a). In particular, “the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned.” *In re Oetiker*, 977 F.2d, 1443, 1446 (Fed. Cir. 1992). As further explained in *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992), a reference is reasonably pertinent if the reference “logically would have commended itself to an inventor’s attention in considering his problem.” In the present instance it is clear that processes relating to magnetic holographic data storage, as disclosed by Abramson, are not in the same field of Applicant’s endeavor regarding systems and methods for forming servo patterns on magnetic media (e.g., compare Abramson col. 1, lines 9-37 and 48-75, with page 2, lines 16-28 of the present application). For example, the holographic storage systems and processes disclosed by Abramson differ from Applicant’s endeavor regarding forming an optical servo pattern on magnetic media.

It is further evident that Abramson is not reasonably pertinent to the problem addressed by the present application regarding formatting a magnetic tape with one or more servo tracks (see, e.g., page 2, lines 13-14 of the present application). In contrast, Abramson provides “a process...for making and reconstructing magnetic holograms,” to store information. (Abramson, col. 1, lines 48-

75). A reference for making and reconstructing magnetic holograms would not have logically commended itself to an inventor's attention when dealing with problems relating to forming servo tracks on magnetic storage tape. Therefore, Abramson is non-analogous art and is inappropriately combined with Saliba, Damer, and Bouldin under the present obviousness rejection.

Accordingly, the rejection should be withdrawn and claims 95 and 96 allowed.

**H.** Claims 97 and 98 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Saliba et al. (US 6,558,774), Damer et al. (US 6,365,061) and Bouldin et al. (US 4,788,129) as applied to claim 95 above and in further view of Saito et al. (US 5,982,592).

Claims 97 and 98 depend from claim 95 and are allowable for at least similar reasons as claim 95 discussed above. The addition of Saito does not cure the deficiencies of the combination of Saliba, Damer, and Bouldin as applied to claim 95, nor is it alleged to in the Office Action.

**CONCLUSION**

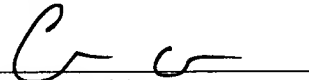
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 249212007010. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: March 16, 2005

Respectfully submitted,

By



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